

REValue: Renewable Energy Jobs

MENAREC, 14-15 May 2012

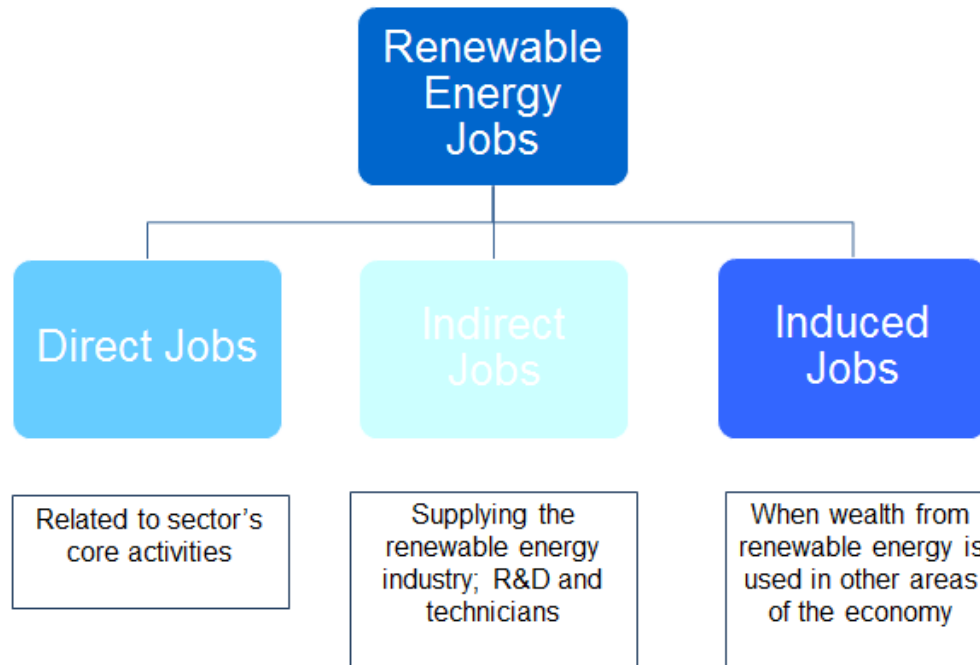
Dr. Rabia Ferroukhi



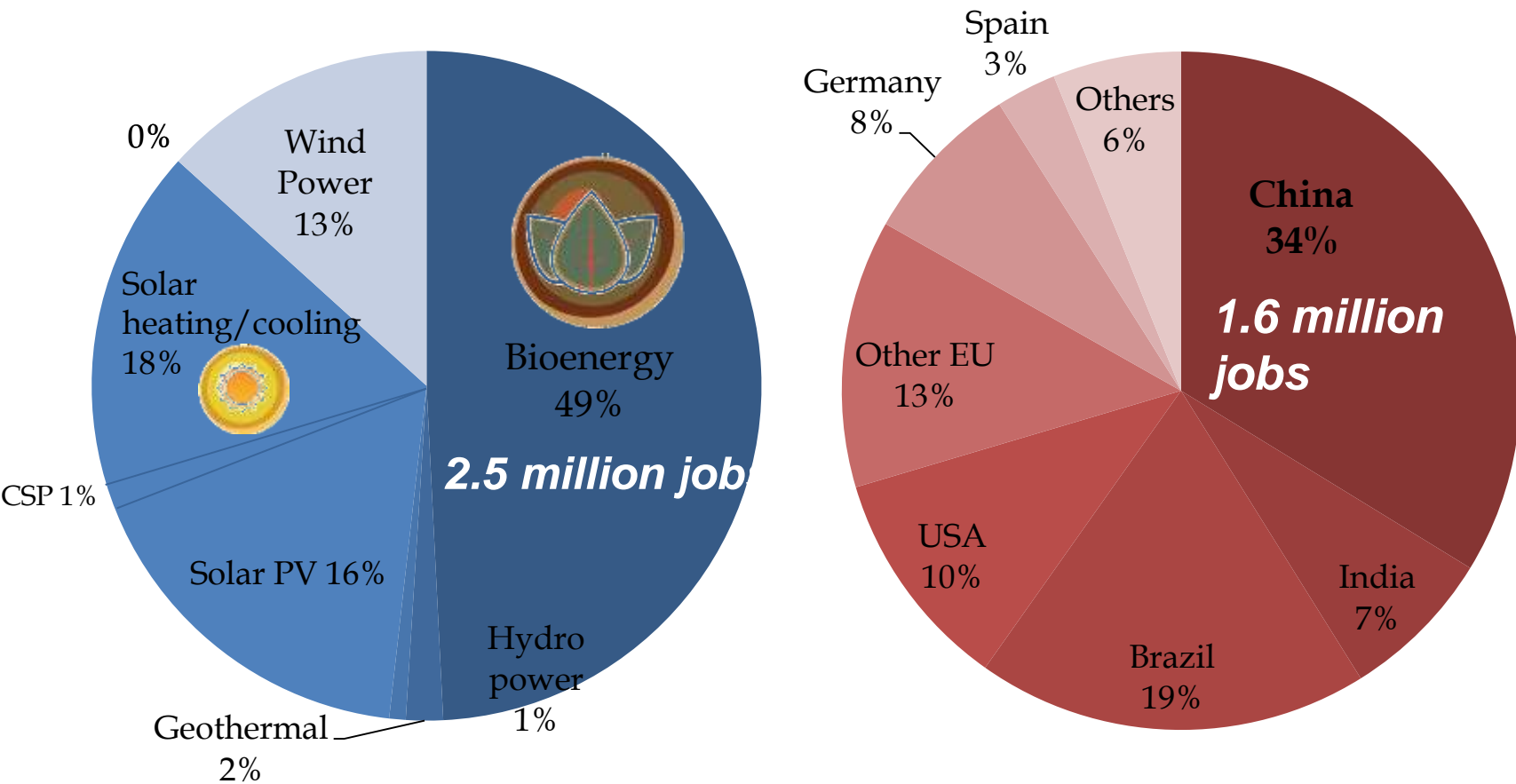
1. Global Outlook on Renewable Energy Jobs
2. Renewable Energy Jobs and Access – Case studies
3. Job creation
 - Supply chain
 - Labour quality and intensity
 - Gender
 - Skills and training
 - Quality assurance
 - Data

Global Outlook on Renewable Energy Jobs

- About **5 million people** worldwide work either directly or indirectly in the renewable energy industry
- Although total global employment numbers continue to increase, some countries have experienced a decrease in the rate of growth, mainly due to the global recession and policy changes

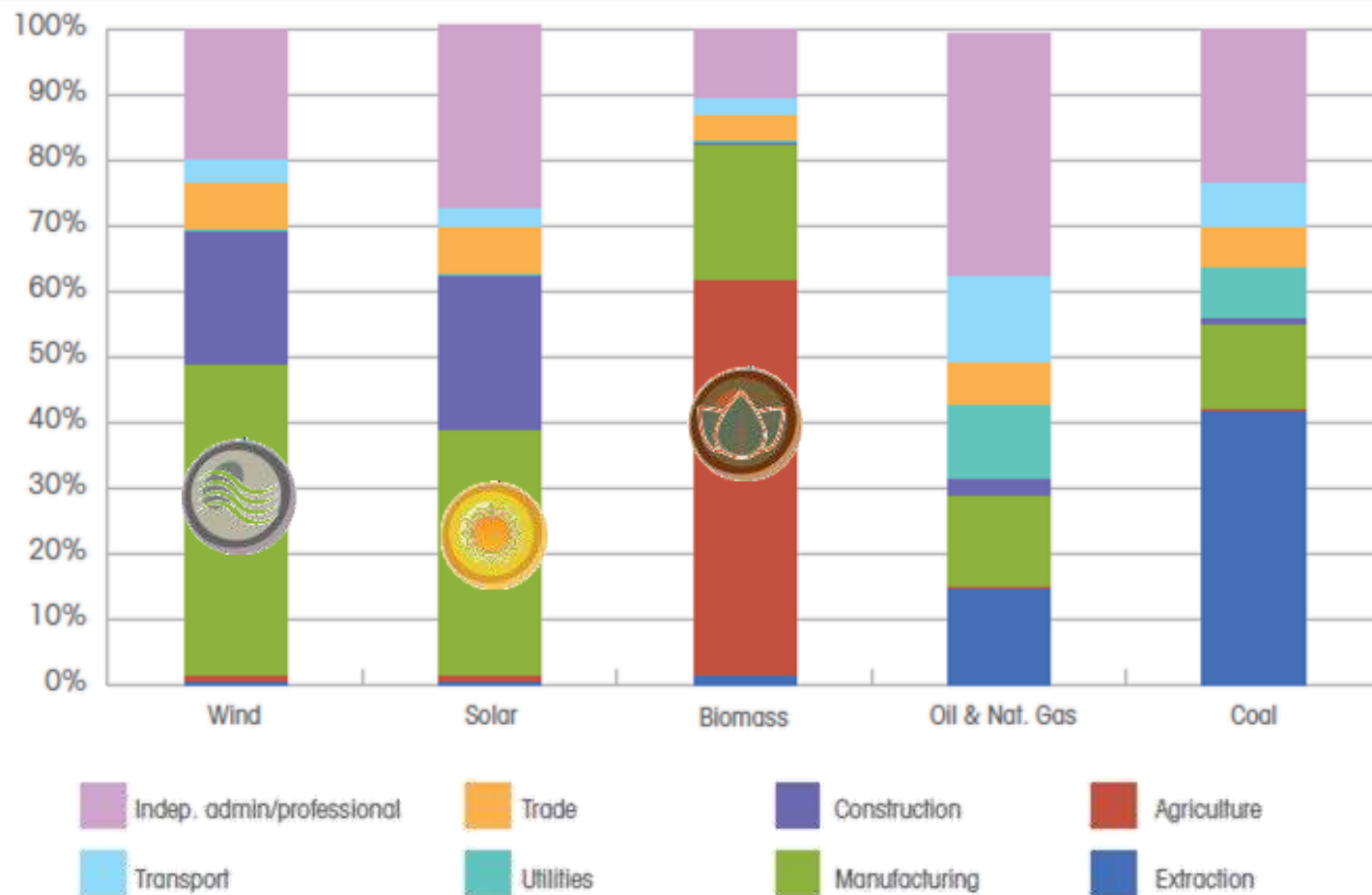


Job Distribution, by Technology & Country



Source: IRENA/ILO data

Job Distribution, across the Supply Chain



Source: Pollin et al. (2009)

Renewable Energy Jobs and Access

- **Renewable Energy Jobs for the Poor Report:** to highlight the employment dimension of projects that improve rural energy access and build local capacity
- Developing countries are starting to recognize the importance of this dimension of the energy access debate
- Achieving sustainable energy for all could mean the creation of *almost 4 million direct jobs by 2030 in the electricity sector alone*



Renewable Energy Jobs and Access - Case Studies

Findings are based on a **series of case studies** from practitioners in Central America, Sub-Saharan Africa, and Asia

Operating in Region / Country (Number of Case Studies)	Case Study Provider	Company or Project	Biogas	Briquettes	Hydro	ICS	SHS	Pico-Solar	SWH, Solar Water Pumps
Central America (4)									
Honduras	E+Co	Hydro A			*				
Guatemala	E+Co	Hydro B			*				
Nicaragua	E+Co	Solar A					*		*
Nicaragua, El Salvador, Panama, Honduras, Guatemala	E+Co	Solar B					*		*
Sub-Saharan Africa (9)									
Tanzania	E+Co	Solar A					*	*	
Tanzania	E+Co	Solar B					*		
Burkina Faso	GIZ	FAFASO ³				*			
Kenya	GVEP	DEEP EA ⁴	*	*		*	*	*	*
Uganda	GVEP	DEEP EA ⁴	*	*		*	*	*	*
Tanzania	GVEP	DEEP EA ⁴		*		*	*	*	*
Kenya	GVEP	SCODE	*			*		*	
Burkina Faso, Mali, Senegal, Ghana, Ethiopia, Tanzania, Uganda, Zambia, Mozambique	ARE	REF-Solar Now ⁵					*	*	
Gambia, Tanzania, Zambia	ARE	NICE International							*
Asia (2)									
Laos	ARE	Sunlabob						*	
Nepal	UNDP/WB	REDP/RERL ⁶	*		*	*	*		

Renewable Energy Jobs and Access – Job creation (1)

Job creation - Energy Supply Chain

Solar PV



Small/Micro Hydro



Improved Cook-stoves



Biogas



Legend



Source: IRENA (2012)

Renewable Energy Jobs for the Poor- Job creation (2)

Labour Quality and Intensity

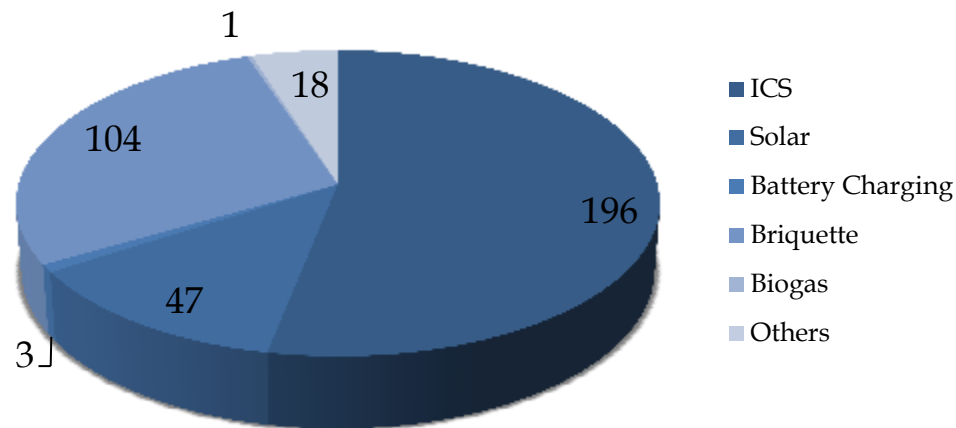
- Cook-stove enterprises create the highest number of jobs.
- Switching from production of conventional stoves to improved models does not necessarily mean new jobs.
- In addition to permanent jobs, a large number of temporary jobs are created, mostly in hydropower.



Renewable Energy Jobs for the Poor- Job creation (3)

Gender Aspects

- Female employees are a distinct minority, especially in managerial and technical positions.
- They have a more important role in certain technologies (briquette-making and cookstoves).



Female Entrepreneurs in Kenya, Tanzania, and Uganda, by Renewable Energy Technology (as of late 2011)



Renewable Energy Jobs and Access

Skills & Training

- The bulk of the skills required can be developed locally.
- Only a limited number of people need to have advanced or specialised technical skills.
- Training can be done on-site or on-the-job.
- Business skills are often as critical as technical knowledge.

Quality Assurance: Essential to creating customer confidence in RET

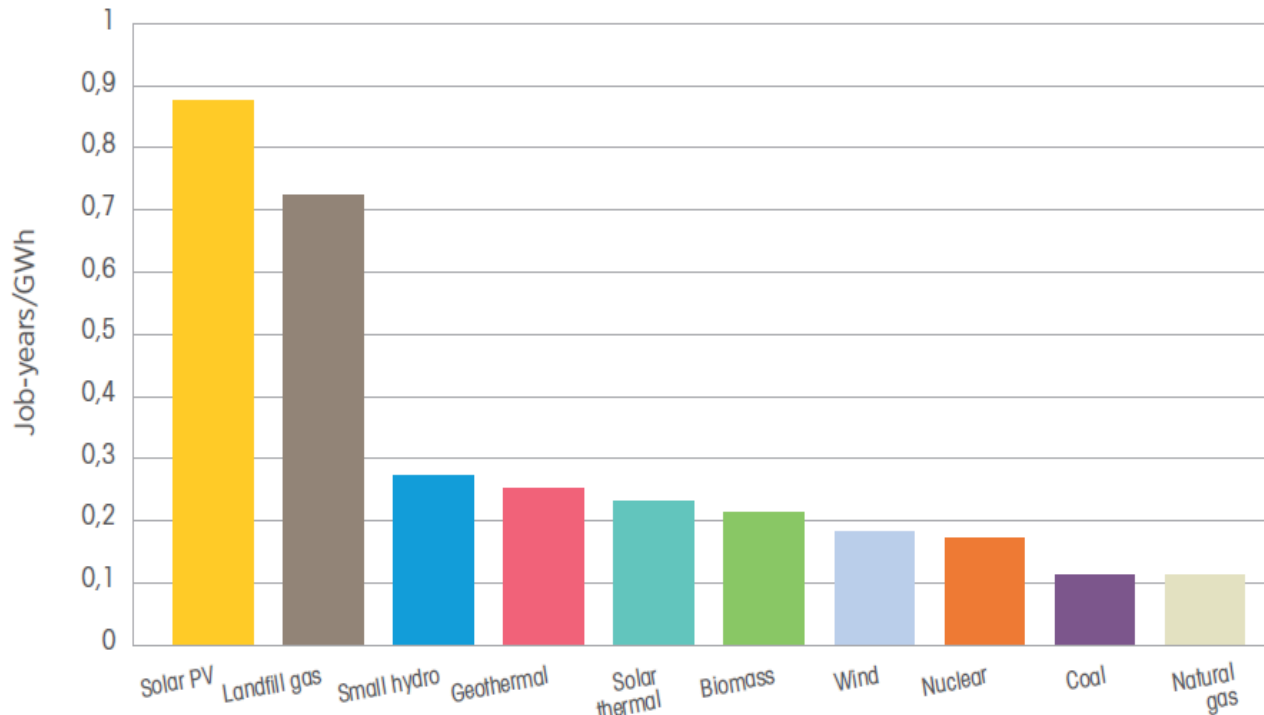
Primary Data Availability

- More systematic efforts to track employment needed
- Need for common criteria and reporting standards



Thank you
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Comparison of job-years across technologies per GWh



Source: Wei et al. (2010)

Key Lessons for Policy Makers

1. Caution is needed in relying on existing data
2. There is potential for net job creation
3. There are job opportunities across the whole value chain
4. Sustainable job creation depends on stable and predictable deployment policies, as well as industrial policy
5. Increased training and education in renewables is crucial

